

# Evolution of the VV&A TWG:

A Proposal for a TWG Subgroup



NAVMSMO VV&A Lead

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NAVMSMO VV&A TWG 18

# Background: The Technical Working Group

**The NAVMSMO VV&A TWG was created in order to:**



Identify a common VV&A community



Disseminate the VV&A Concept throughout the Navy M&S VV&A Community.



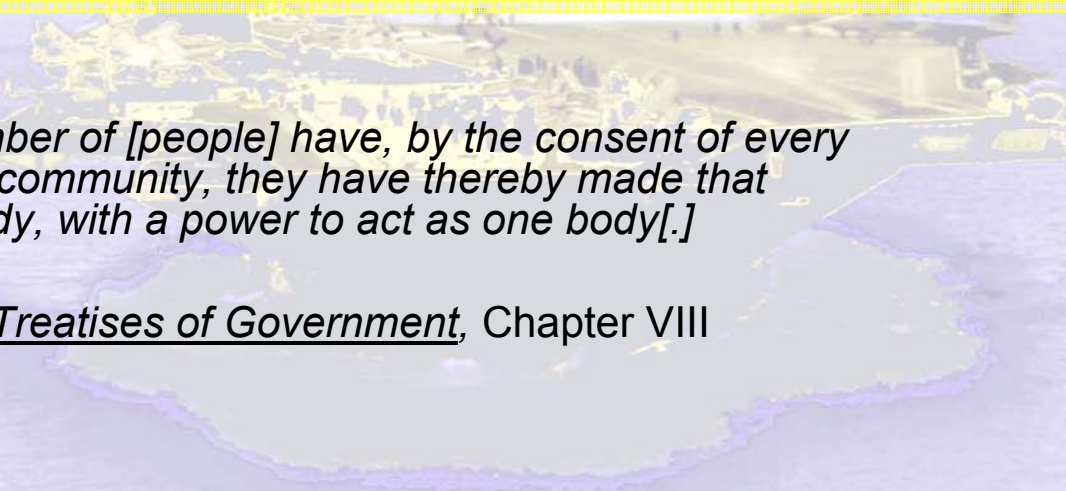
Identify common issues associated with VV&A.



Facilitate equitable solutions to recurrent VV&A issues.



# Identification: Defining the M&S VV&A Community



*For, when any number of [people] have, by the consent of every individual, made a community, they have thereby made that community one body, with a power to act as one body[.]*

-John Locke, *Two Treatises of Government*, Chapter VIII





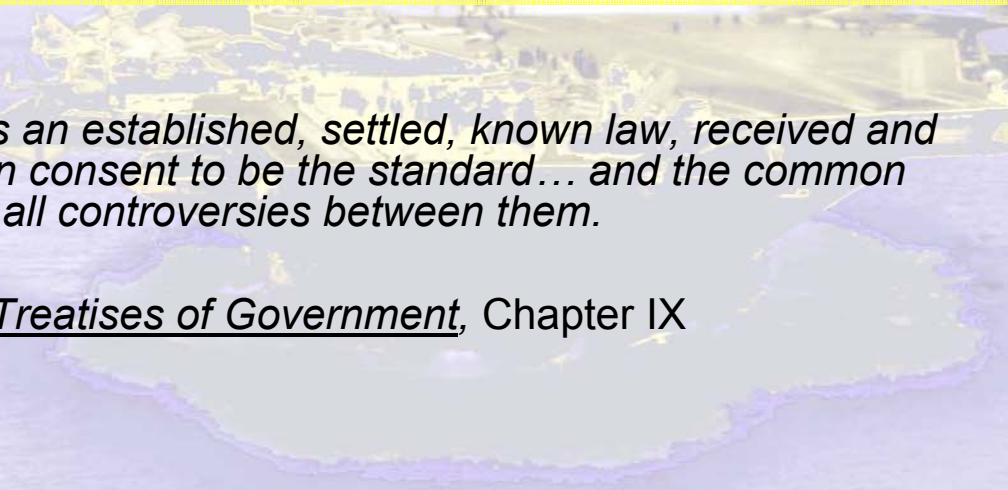
# Definition: The M&S VV&A Community

**Community (n):** 1) *A group of people having common interests.* 2) *A group viewed as forming a distinct segment of society.*

Civil Society	VV&A
Common set of people	M&S VV&A
Single central language	VV&A Requirements
Common set of rules	DoD/DoN Directives
Similar philosophy	"Credible M&S"



# Galvanization: Dissemination of the VV&A Concept



*Firstly, there wants an established, settled, known law, received and allowed by common consent to be the standard... and the common measure to decide all controversies between them.*

-John Locke, *Two Treatises of Government*, Chapter IX



# Galvanize: Dissemination of VV&A

- VV&A Instruction and Guidance
  - SECNAVINST 5200.40
  - The DoN M&S VV&A Implementation Handbook
- Socialization of VV&A's Benefits
  - Discussion with M&S Developers of VV&A's contribution to M&S credibility.
  - Emphasis of the need to effectively document.





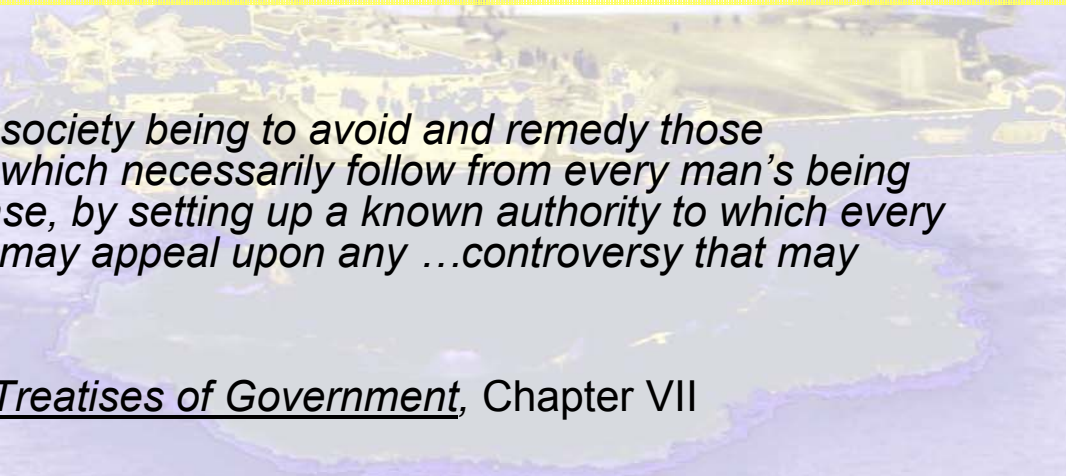
# Galvanize: Supporting the VV&A Community

- Finding Commonality
  - Presentations on various M&S programs and their VV&A efforts.
- Encouraging Participation in VV&A Standardization
  - Evaluation of Navy SNDs (SECNAVINST 5200.40A and The DoN M&S VV&A Handbook Vol. I: Overview).





# The Next Hurdle: Identification of Common Areas of Concern in VV&A Implementation



*For the end of civil society being to avoid and remedy those inconveniences ... which necessarily follow from every man's being judge in his own case, by setting up a known authority to which every one of that society may appeal upon any ...controversy that may arise...*

-John Locke, *Two Treatises of Government*, Chapter VII





# Honing in on the Issues

- Through the TWGs, NAVMSMO M&S VV&A has been able to **identify several areas of concern.**
- The VV&A Office has tracked these issues over the last several years in order to find the **commonalities and recurrences.**
- Many concerns are either program-specific or areas that are **not thoroughly resolved** by the SECNAVINSTS and Handbooks.



# Recurrent Questions for M&S and VV&A

- M&S has evolved greatly over the last several years.
  - Scale, complexity, composability, interoperability.
- Outstanding issues of specific M&S organizations and programs captured by the TWG have common themes.
  - i.e.- the accreditation of legacy M&S with little to no V&V documentation.
- These Navy-wise, recurrent issues require resolution.
- Who will address these needs?



# TWG: Working Toward Equitable Solutions

- By its definition, the TWG is an ideal forum for addressing these issues:
  - **Technical:** *Having special skill or practical knowledge used in or particular to a specific field or profession; specialized.*
  - **Working:** *Physical or mental effort or activity directed toward the production or accomplishment of something*
  - **Group:** *An assemblage of persons or objects gathered or located together; an aggregation*
- Hence...

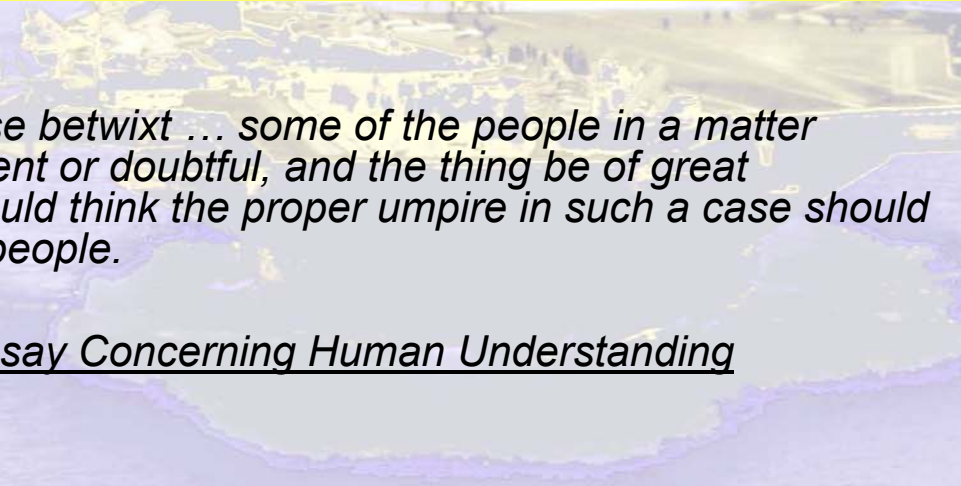






# Solutions:

## Creating a TWG Subcommittee



*If a controversy arise betwixt ... some of the people in a matter where the law is silent or doubtful, and the thing be of great consequence, I should think the proper umpire in such a case should be the body of the people.*

-John Locke, *An Essay Concerning Human Understanding*



# TWG Subcommittee: Purpose

- To sort and analyze M&S-specific issues by leveraging the diverse composition of the VV&A TWG Community.
- To formulate equitable solutions to common concerns.



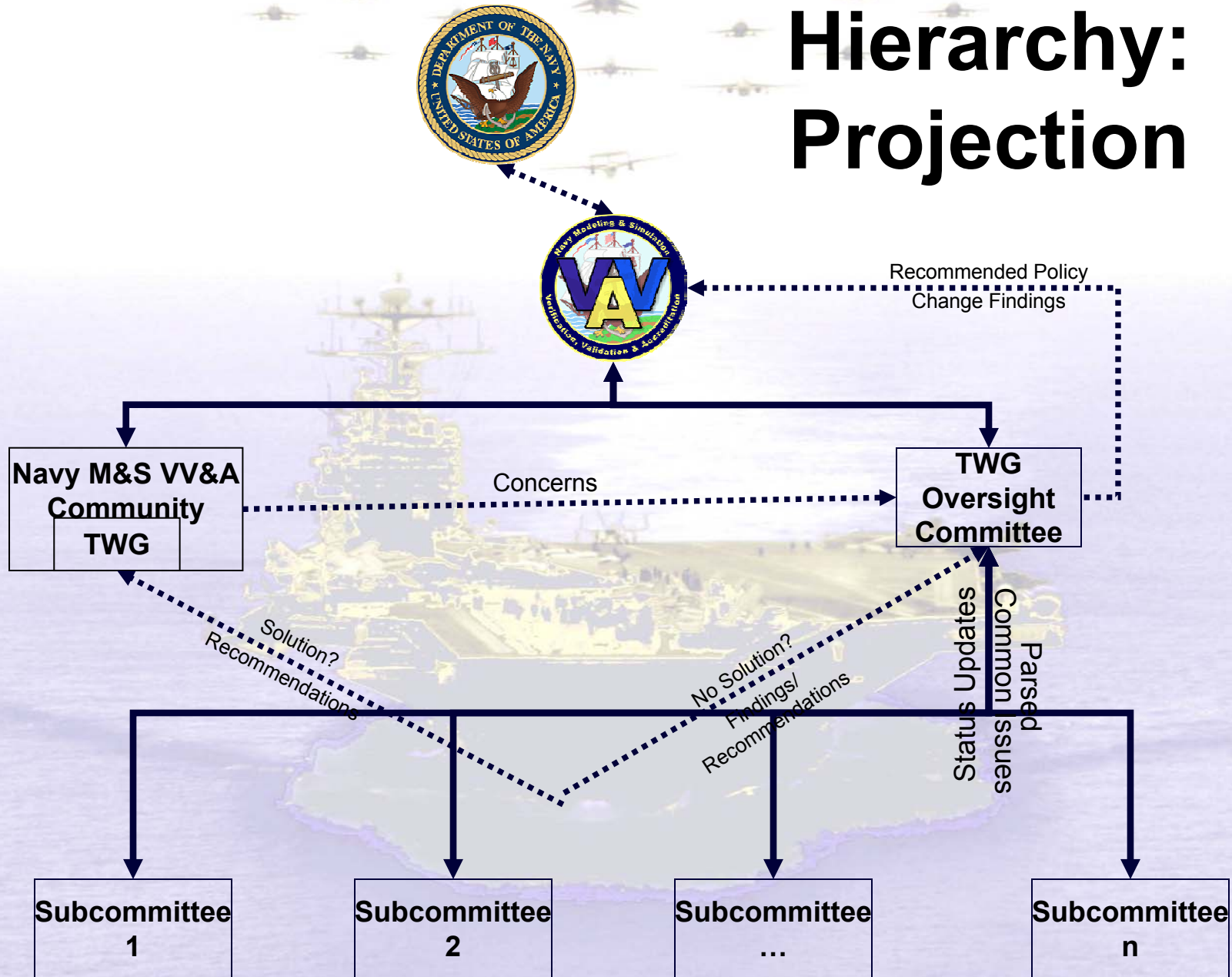
# TWG Subcommittee: Format

## Taking the example of Legislative Government:

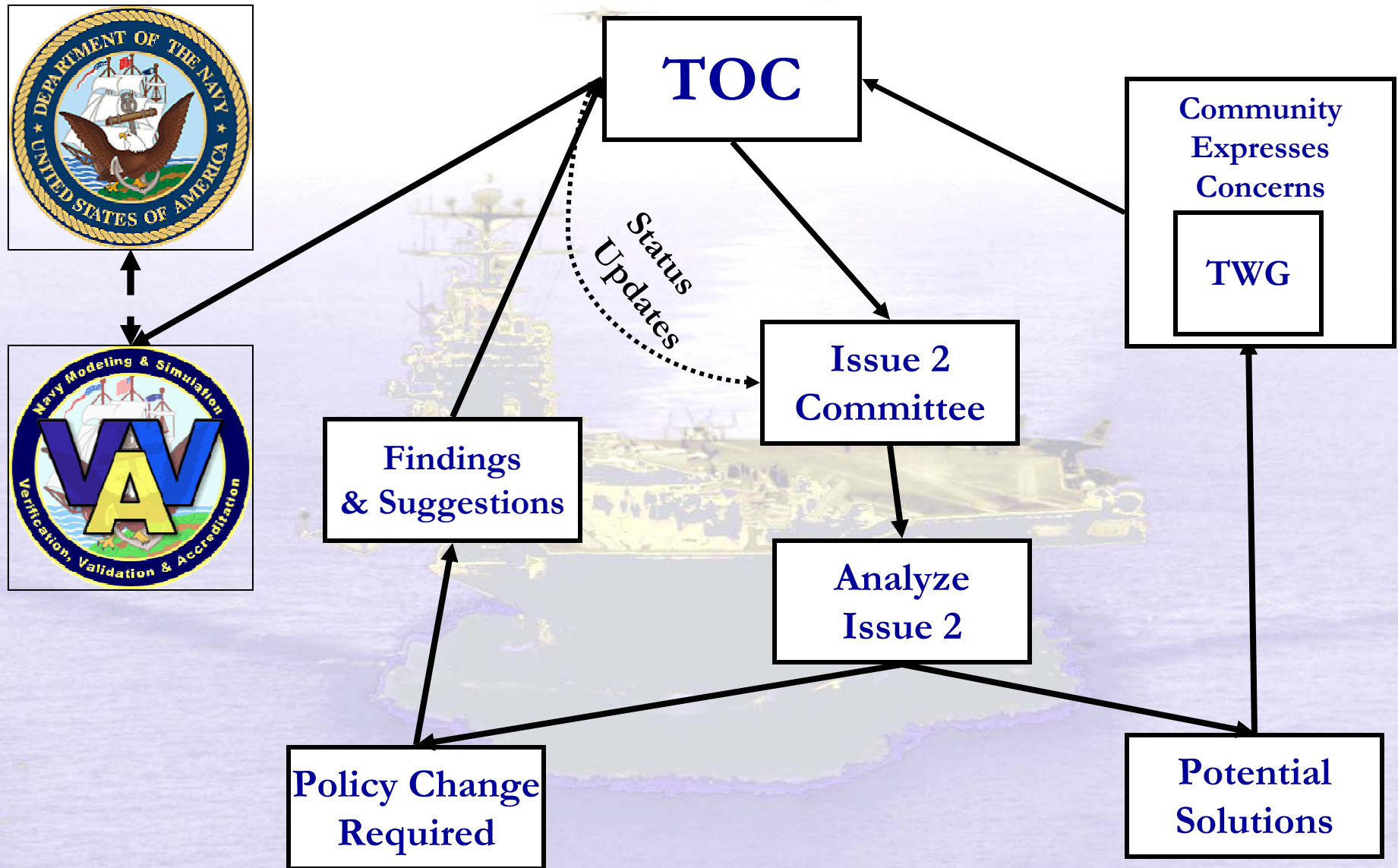
Civil Society	VV&A
<ul style="list-style-type: none"><li>• Public asserts concern</li></ul>	<ul style="list-style-type: none"><li>• VV&amp;A effort asserts concern</li></ul>
<ul style="list-style-type: none"><li>• Oversight committee parses issues out to subcommittees for analysis</li></ul>	<ul style="list-style-type: none"><li>• TWG Oversight Committee groups concerns and parses them out to Issues Resolution Groups for analysis</li></ul>
<ul style="list-style-type: none"><li>• Subcommittee makes recommendations for bills and resolutions</li></ul>	<ul style="list-style-type: none"><li>• Issue Resolution Group created that analyzes the issues and generates possible solutions</li></ul>
<ul style="list-style-type: none"><li>• Recommendations sent to Legislature for passage</li></ul>	<ul style="list-style-type: none"><li>• Recommendations sent to NAVMSMO for approval or further analysis by appropriate org.</li></ul>



# Organizational Hierarchy: Projection



# Theoretical Practicum: An Example



# TWG Subcommittee: Functional Timeline

<b>Sub-Org</b>	<b>x/year</b>	<b>Actions</b>
TWG	Quarterly	Continue M&S VV&A effort briefings and identify new issues.
TOC	Annual	Review current TWG issues & formulate new Sub-Committees (YR:1-x)
Sub-Comms (1-x)	As Needed	Maintain internal dialogue to resolve issue. Report out findings as available at the following TWG.



# Further Developmental Input Needed

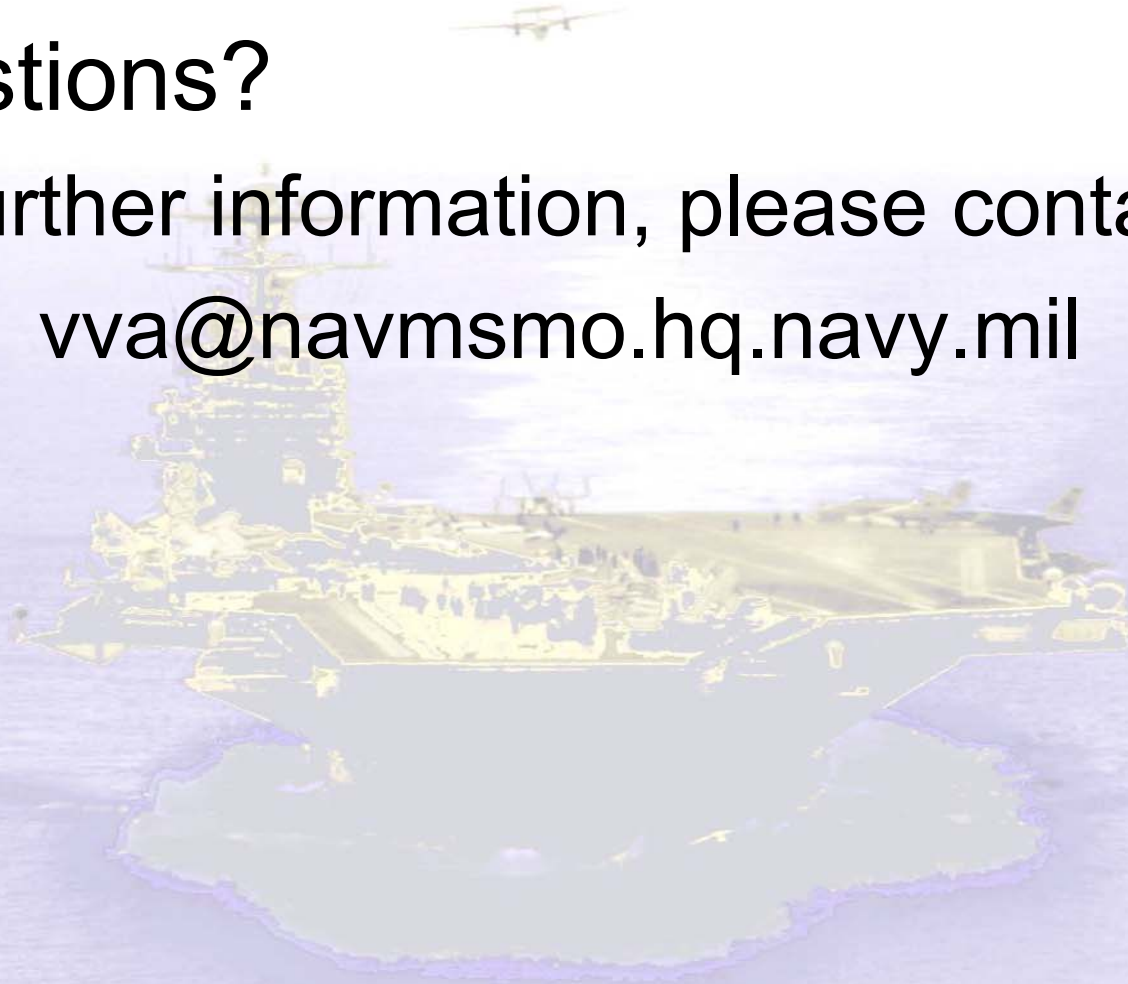
- Initial Areas of Concern:
  - Initial Areas to Be Addressed by the Committee:
    - Finding effective ‘hammers’ to enforce VV&A
    - Contract specifications for the creation of effective VV&A requirements, &c.
  - Participation & Expected Outcomes:
    - The establishment of more concrete “best practices” for specific VV&A concerns
      - road-mapping legacy VV&A efforts, The Incentive for Participation
  - Format/Agenda:
    - Alternative: a technical interchange for V&V techniques
    - Two-day events that include presentations and roundtable/peer reviews.
  - Funding/Resources:
    - Justification to program managers to fund participation in a structure that is related to general VV&A issues, rather than the organization’s specific V&V efforts.

# Further Developmental Input Needed

- Generally:
  - Participation/buy-in of the M&S VV&A Community
  - Identification of common issues
  - Organizational/structural details
  - Mechanisms for enacting issue coordination within sub-groups
  - Support

# Q&A and POC

- Questions?
- For further information, please contact:  
[vva@navmsmo.hq.navy.mil](mailto:vva@navmsmo.hq.navy.mil)







# Roundtable Discussions

***[A]ll our knowledge is founded [on experience], and from that it ultimately derives itself.*** Our observation employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.

-John Locke, *An Essay Concerning Human Understanding*



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